GLEANINGS IN BEE CULTURE

Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

PUBLISHED MONTHLY, AT MEDINA, OHIO,

BY A. I. ROOT & CO.

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In the Preparation of this Journal the following are the Principal Periodicals Consulted:

American Bee Journal. *Clarke.*

Bee-Keeper's Magazine. *King.*

National Bee Journal. *Mrs. Tupper.*

Bee World. *A. F. Moon & Co.*

[*Also Bound Volumes of the former since* 1860, *and Files of all other Bee Journals that have been Published in America.*]

American Agriculturist,

Prairie Farmer,

Rural New Yorker,

Country Gentleman,

Ohio Farmer,

Scientific American.

"Novice's Wind-Mill Print," Medina, Ohio.

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SUNDRY MATTERS.

MR. A. I. ROOT, Dear Sir:—The two Standard Hives you sent me at different times, at Newville, reached me safely, but were rather slow in coming. The first one, sent complete by freight, was two weeks on the way, and owing to the warehouse men piling other articles on top of it and forgetting about it, I did not get it for more than a week after it arrived. The freight was $1.80. The second hive, sent in a bundle by express, arrived at the end of a week. Express charges $1.45.

WILLIAM L. AU, Newburg, Pa. July 6th, 1874.

The hive sent by express was tied up in a bundle with *strong paper*, thus occupying much less space than a nailed up hive; also, a bundle, done up in paper seems to be regarded by the express men as something of less value than a boxed article, and is therefore carried for a less amount. We are all well aware that 'tis but poor encouragement for our customers to have to pay $3.75 express charges on a hive that only costs $3.50, as has happened in some cases where the distance has been great.

I shall have more Corners after this, I am so well pleased with them because I can handle my bees now without making a "smoke house" of a hive. I have been using closed side frames.

JOHN F. DIPMAN, Fremont, Ohio.

We take great pleasure in saying our Medina Co. bee-keepers have filled nearly all orders for $1.00 Queens, and consider themselves now able to send as many as will probably be wanted, promptly. For some reason or other, our Southern friends seem to have pretty much all failed in the undertaking, so for the present the Queen business devolves on the residents of our more Northern clime.

As we are personally unable to engage in Queen-rearing for the market at present, orders had better be sent directly to our neighbors whose names appear in the list; Messrs. Dean, Blakeslee and Phelps are rearing the most at present. When we have learned how to winter without losing ¾ of our bees or more, *we* shall be prepared to take up Queen-rearing again.

The probability is that dollar Queens can only be furnished during the months of July, Aug., Sept., and perhaps Oct.; will those who wish them, please bear it in mind, and shape their orders accordingly. We are also happy to state that we have one man among our number equal to the task of sending Queens safely to Texas. See extract below:

MR. A. I. ROOT:—I rec'd on last Saturday, 11 inst, an Italian Queen in one of your mailing boxes. Fine golden color, every worker alive and gay—from G. W. Dean, River Styx. Medina Co. O. I rec'd two from —— of —— both dead, I am now satisfied from bad packing. M. S. KLUM, Sherman, Texas, July 17th, 1874.

A subscriber sends us for publication, a pretty severe criticism on H. A. King & Co's smoker. We extract as follows:

I will briefly describe this Bee Smoker. A small bellows of the kind ordinarily used, with handles extending beyond the hinge of the bellows, constitutes the "windy" part of the machine. By pressing the handles together the bellows is opened to receive air and a spring between the handles serves to shut up or drive the air from the bellows.

Well now the "tobacco pipe" in which the "rags, wood, punk or tobacco" is burned, is a wooden (!) bowl about one inch in diameter and about one and three quarters inches deep, to which a stem is attached. A hole is made in the bellows and the bowl is inserted; no valve prevents the smoke and smoking material from falling into the bellows, which with the wooden bow., we should very soon expect to see consumed by fire, thus losing altogether the "neat and convenient" machine.

Again, think of the *quantity* of wood or punk capable of going into a bowl of the dimensions named.

In closing we most earnestly urge dealers in "Apiarian supplies" to refrain from taking away from Mr. Quinby the sale of this, his most ingenious and perhaps most useful invention. That he *could* have it patented we have no doubt. Respectfully,

J. H. Nellis, Canajoharie, N. Y. June 14, 1874.

To satisfy ourselves that this was not too severe we ordered one of the Smokers and find it even worse than described above. Compared with Quinby's, the workmanship is very poor; rubber cloth is used for the bellows instead of leather and if the machine is turned over, nothing prevents the coals from falling directly inside. Filled with our best punk, it burned less than 10 minutes, and at the third trial set on fire the wooden bowl and the *reed* pipe stem attached to it. Cost postage and all, $1.60.

THERE are considerably many calls for eggs from our imported Queen, and several are succeeding even at a distance. As many wish eggs of a certain age only, to try the experiment, and as 'tis difficult to get her majesty to lay in the precise comb desired, we we will on the 11th of this month, remove all her combs giving her new ones, with the exception of one perhaps, containing only *hatching* brood. We can thus give our friends eggs of the age they wish with precision, if their orders are sent in before the 12th, or eggs in the midst of hatching brood (which has inherent animal warmth) if they desire. The price will be 25c in paper boxes, or 35c in a wooden box packed as described on another page.

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PRINTERS,
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Orders will be filled strictly in rotation.

Address J. SHAW & SON, Chatham Center,
3t or I. E. DANIELS, Lodi, Medina Co., O.

GLEANINGS IN BEE CULTURE.

DEVOTED EXCLUSIVELY TO BEES AND HONEY

Vol. II. AUGUST 1, 1874. No. VIII

HOW TO CONDUCT AN APIARY.

No. 8.

COULD we know just what the yield of honey would be during this month, with each of our readers, we might advise much more to the point, but whatever the circumstances may be, please do *not* let your Apiary run down, and get grown up with weeds. We have had much to say on this matter 'tis true, but it seems so natural to find every thing allowed to run down after the honey yield has ceased, that we fear very much more will need be said before Apiaries are kept like a "tidy workshop" especially in the fall of the year.

There are very many points still so unsettled, that we cannot as yet decide on what is best; they are now under the consideration of our best thinkers and "doers" too for that matter. For instance: How large had we best make our hives? *We* certainly are not prepared to decide at present. A visit to some very successful neighboring Apiarians gives no positive grounds for a decision on the subject. Two of their owners, are quite confident that a quart of Italian bees will gather about the same quantity of honey whether they are a nucleus by themselves, or whether they form a part of a two story hive, or whether they belong to a four foot New Idea hive; and in the former case the Apiarist can secure nearly as much of an income from them, from the sale of Queens, as from the honey they gather.

Our friend Dean, of River Styx, as we have before mentioned has before this season only used a single story hive, containing when full, 12 Gallup frames. He always uses a division board, and moves it up so as to have the bees fill their space at all times, in fact quite a swarm issued while we were there, and we were informed they came all from a *one comb* nucleus. This seemed incredible, but after he had taken away their Queen to induce them to go back, we looked inside and found the whole space on both sides of the comb, *full of bees.* No wonder he is successful, these bees filled their one comb with honey as soon as the full stocks filled their twelve combs, and so on through his 40 or 50 colonies. The certainty and ease with which he built up colonies and raised Queens, made his bees build all worker comb of beautiful evenness and regularity, etc. etc., was enough to make any one think the pursuit the most fascinating in the world. Although he has three of the four foot hives under way, he did not seem disposed to agree on their universal adoption, and he could not think of abandoning his division boards any sooner than abandoning hives, to use his own expression. Mr. Blakeslee uses the Langstroth hive and he thinks his bees that are rearing Queens, give him nearly if not quite as much honey as if they were in a large hive. Our own bees are at present in single story Simplicity L. frame hives, and the lightness and ease with which we handle them (when there is no upper story on) tempts us very much to be satisfied with our Langstroth frames, and never to think of any other. As we had intended to increase without any thought of surplus this season, we have been very agreeably surprised to find that a one story hive *crammed full of bees* will give a very large amount of honey, if it be extracted promptly when the hive is full. It is true that our Standard hive can be allowed to go 8 days, when our Simplicities would need emptying in 4, but the latter only take about half the time and the L. frames standing square before you in their shallow hives, are much the easiest to manipulate. Please remember that we are only considering both sides of the matter without making a positive decision either way, but we would advise those who like ourselves have a thousand or two of nice L. combs, to be in no haste about transferring them into something else. When bee-keepers decide whether they wish a hive to contain 10, 20, 30 or 40 combs, we can tell better what shape we wish our combs to have. Again: What about wintering? We really cannot gather that the very long hives have practically shown themselves much, if any superior to the ten frame hives, when the latter contained plenty of bees; the former having dwindled down in some localities, just about the same as the others.

Now it will be very well to begin this month, to consider the matter of wintering, and those who decide on wintering on natural stores should cease using the extractor in time to allow them to fill up nicely. As no report has ever been given showing that sugar-syrup was *inferior* to natural stores we shall still advise taking away the good honey and feeding the cheaper food. We cannot gather that the syrup stores have any influence either way on the recent troubles in getting them through the months of March and April.

In regard to cider mills; as soon as the bees commence visiting them or the groceries, we would advise keeping them elsewhere employed on dry sugar, and our experiments last fall, though made late, and not conclusive, seem to indicate that the remedy may be effectual. We would keep them away from the cider mills on account of the great number that are there

drowned and killed, if for no *other* reason. Those who are anxious to increase the number of their colonies in the fall, or to rear Queens, should keep them busy on the dry sugar, if possible just as soon as the yield of honey fails, for they are quite apt to make bad work when first disappointed in getting their customary daily stores, unless carefully watched. 'Tis true we must expect to feed our neighbors' bees as well, but is not this preferable to having our bees annoy other neighbors?

We do not think any method of feeding in the hive can answer the same purpose, for whatever is in the hive is theirs already, and 'tis "bee like" to feel that "the more they have, the more they want."

"Now see here Mr. N., you have written as though 'twere possible to make a one story L. hive hold a whole colony the season through. What is to done with the surplus bees and brood?"

"Why make new colonies when the hive gets too full, of course."

"But suppose the Apiarist has as many as he wishes already?"

"Sell 'em."

"So you would have the production of new colonies always go hand in hand with surplus honey?"

"Or rather we would simply make the suggestion."

"'Twere much better as a suggestion than given as a part of 'How to Conduct an Apiary.'"

In one case we are dependant on a single Queen for the peopling of perhaps 30 combs, in the other only 10; now if a 30 comb hive gives 300 lbs. surplus, will not the other give safely 100? in the former case the whole is dependant on the caprice of a *single* Queen, and Queens *are* capricious in regard to the number of eggs they lay, at least we find them so.

Our Queens sometimes lay 2000 eggs per day for a short time; but so far as keeping them at work at this rate is concerned, *we* have not been able to come any where near it.

In conclusion we would say that we consider the Standard hive by all means preferable, when one is commencing anew and can choose that as well as any other; also, for a hive that can be used to allow all of the Queen's progeny to labor without increasing the number of stocks, we should give it the preference unhesitatingly, over a two story hive.

Friend Muth of Cincinnati, who has had much experience, advises that honey be run into large cans, milk cans for instance, and allowed to stand several days to settle, and allow of what scum may rise to the surface being skimmed off before barreling it. This will make some additional trouble, but may be quite an important item; we have not as yet been able to give the matter a careful test, but will say this much, that our honey has always had a bad habit of expanding when it candies, so much so that it generally oozes out around the mouth of the jars, in a very untidy and inconvenient way. If, as friend M. thinks, this can be remedied by allowing it to stand, and removing the scum etc., we should certainly do it. Will our friends please report.

Again, we last season recommended using half rosin with the wax for waxing barrels, and we thought we had given it a thorough test, for the honey had no rosin taste even after being several months in the barrel; but this spring having occasion to use a barrel that had some honey candied on its sides, we found on pouring it out after it had been standing in the sun until melted, that it had a considerable taste of resin. In view of this we think beeswax alone had better be used. If it is made very hot and not less than ½ gallon used, 'twill take but little to make all tight.

OUR OWN APIARY.

HAD we not grown sober and steady of late, we presume we should now be sailing our hat on account of the sudden, very welcome intelligence given us by the bees, that the basswood trees were loaded with honey.

We had abandoned all hope of doing more this season than to build up our shattered colonies, but to-day, July 6th, we have taken more than half a barrel of nice thick honey, and during the whole time we were extracting, not a robber interfered with our work. It really seems like old times. Not even smoke was required until we came to our natural swarms of common bees. And by the way, that reminds us that we haven't told about this same good fortune of ours. It was June 25th, and we were all intent on our July No. you see, when a neighbor persisted in wanting to see Novice. His first remark was, "Well Mr. N., if you were sick you would send for the Doctor would you not?"

Novice replied that he probably should, mentally feeling that he hadn't time to be sick "no how" just then; but his face became genial in an instant when the Doctor—for he it was—suggested that "no one was sick, but that a huge swarm of bees were clustered on a bush in his garden and he thought the only proper thing to be done was to send for—"

"Are they hanging in the sun?" interrupted Novice, for the day was an intensely hot one and it was near noon. When informed they were, he waited only to get two perforated tin cases out of the wax extractors and started for the "big swarm of bees." Alas for human hopes; when he arrived at the bush, the bees had decamped and nothing remained but to go home again, mentally avowing that he would next time collect his scattered wits five minutes quicker when told a swarm of bees were to be had for the hiving.

Worst of all, he had planned just which empty hive, in the shade of an especial grape vine, they were to occupy, and he couldn't quite give it up; so when informed after dinner that some workmen had hived a swarm in a box, and wanted to sell them to him, he made such rapid strides for them that, in less than half an hour he had them all fixed in their shady home, and rejoicing over their treasures of partly filled combs, among which had been put one of unsealed brood, to be sure they did not desert. The men who hived them were also rejoicing over $2.50 which they received just for putting them in an old box. Before dismissing them, we may add that they have already yielded in ten days enough honey to pay first cost, and so we may consider it a pretty fair investment. We at first considered this to be the truant swarm of the forenoon, but on

learning they had been hived about nine o'clock, contented ourselves in thinking that if we had not *the*, we had got *a* swarm, and about sun set Novice had a sudden revival of the swarming fever caused by a report that a "big swarm of bees" were hanging on a plum tree, and had been all the P. M., during a heavy thunderstorm, and that no one would hive them, there were so many, etc. No wonder he got his metal baskets again and traveled for the point mentioned. Sure enough, there they were, looking wet and rather sorry; a few twigs of the plum tree foliage were tied in the bottom of one of the baskets and he essayed to make them cluster inside, when inverted, but they were so chilled that when a bunch of them as large as a large apple fell into the bushes and grass underneath, he decided to hold the other basket under them. As they were clustered on the body and limbs of the tree, it was rather slow work, but he finally got them all "bagged" except the bunch that fell down. They were taken home and hastily emptied before the hives, the swarm being so large 'twas thought best to divide it. A card containing *eggs* only, from the imported Queen was provided for the Queenless part, and they were coaxed into the hives; but both divisions would persist in running out again "pell-mell" until a frame containing *unsealed larvæ* was given them, besides the comb containing the eggs. Shortly after daylight next morning Novice once more repaired to the plum tree and found about a pint of bees clustered on its trunk and the Queen among them "to be sure." She was given to the largest half, and they have now given us one nice new comb, and a hive full of honey, and the Queenless part, after having the comb of larvæ taken away from them next day—'twas only loaned—have built nine Queen cells, and given us half a hive full of honey; and we have to-day given them six combs of hatching brood into which we shall insert the cells, one in each, that none may be torn down. By the way the eight Queens we reared in our first lot are now *all* laying. Isn't that pretty well to get a laying Queen from every cell started?

By the way, another swarm of bees was hived in a box July 3rd, and we were consulted as to what was best to be done with them. As formerly, "a swarm in July were not worth a fly," we only offered $1.50 for them, but the women folks where they alighted considered them a lucky omen, and thought the amount but very poor compensation for "selling ones luck." We explained to them that they were almost useless property to any one who had no empty combs to give them, as we had, but finally paid $1.75 and carried them half a mile in a large box without any bottom. These have in three days, given us half a hive full of honey, which is a strong argument in favor of keeping a supply of empty combs and an extractor on hand; for how much could these bees have done had they been compelled to build the combs?

Once more we have an Apiary with a population sufficient to make the air resound with gladness, and equal to the task of getting up a respectable roar at the close of the day, when the yield of honey has been encouraging. Although we try not to borrow trouble for the future, dim visions of "cider mills" and bees all dead and dying will intrude themselves at times.

On yesterday morning we followed the line the greater part of them were taking to the basswoods, and we found the trees bending beneath their load of blossoms. These when held so the sun shone down into them showed a tiny glistening drop of pure honey in the little cup formed by the petals of the flowers; this drop is sufficient to be tasted readily and is so convenient of access that 'tis no wonder at all that bees get crazy for it, and that they gather astonishing quantities, for a load could be obtained from a very few blossoms and in a comparatively short time. After seeing how the honey is secreted, the great yields from the Linden forests of the West seem easier to understand, but the yield is very uncertain here, or at least has been for the past few years.

"Yes, just 45 colonies, and over 850 lbs. of honey," Novice was saying.

"But," says his interlocutor, "You have not made them all from the 16 very weak colonies which you said comprised your whole Apiary June 8th,? It is now July 22nd, and from 16 to 45 in a little more than six weeks sounds like a pretty large result even had the 16 been strong. Have you purchased none at all?"

"Well, let us see: P. G. *did* purchase a colony of Blacks about June 1st, to test one of her projects. As she couldn't wait a minute to have it Italianized, she commenced operations at once by killing the Black Queen without considering the length of time 'twould take to replace her; so the bees and brood were eventually incorporated with the common stock. Then we purchased a natural swarm (Blacks) June 25th, for $2.50, a second one July 3rd, for $1.75, and a third—second swarm with unfertile Queen—July 7th, for $1.25. This is all except a fourth natural swarm found without an owner as we have mentioned, June 25th."

"But what became of your resolution to make your Apiary self sustaining and not to purchase?"

"Well, in the first place P. G's orphaned colony were losing so much time for want of a Queen of which we had a superfluity, and the natural swarm waiting to be cared for in a cold unfeeling world—"

"Hold on Mr. N.; isn't that pretty cool philanthropy? How many lbs. of honey did this 'unprotected swarm,' put in the empty combs you gave it?" Full 75 lbs. worth 20c. per lb. did they not?" Novice assented.

"And you divided the swarm at that, and set the other half rearing Queen cells if we are not mistaken? Yes, well P. G. says you made them construct two lots in succession, amounting to 15 or 20 in all. Now these cells from imported stock were worth just then something like $10.00 and as they gave you honey too all the time, it seems that your 'cold unfeeling world' let about $30.00 slide through their fingers which you in your *philanthropy* didn't. But go on."

Strange to say, Novice for once in the world declines being voluble even on bees, and so we shall have to end our chapter until next month.

P. S.—Our first eight Queen cells, gave us 8 Queens and they are all laying. Our second, third, and fourth lots might have done as well, had we followed *our own* teachings.

OUR PRIMARY DEPARTMENT,

Or First Principles in Bee-Keeping.

[Designed especially for the veriest novices, and those who know nothing of bees whatever. Conducted by a fellow Novice of several years experience replete with blunders, as well as with occasional successes.]

WHAT kind of a colony of bees to purchase? We would advise that you take whatever comes handiest, if there are only *lots of bees* in the hive. You will have to transfer it any way, and so it will not make any great difference what contains them. Bees in a box hive are valued at from 2½ to $10.00 according to season, locality and strength of colony. If you could beg, borrow or steal a few empty combs, the simplest way in the world would be to buy a natural swarm, if one could be obtained within a day or two after having come out. Of course the word "steal" is not really intended, for we expect all bee-keepers if they wish really to enjoy their possessions to render a full fair equivalent for every thing, that they may feel 'tis all honestly earned by the sweat of their brow.

Whatever the hive may be, locate it on the north side of the trellis as described last month, make it level unless 'tis intended to slant a little from the entrance to shed rain, and have the entrance on the east side. Bank it around with saw-dust far enough so that you can go down on your knees safely at any side of it. It's good for one to go down on their knees sometimes, and if you would be an Apiarist the sooner you bow as a submissive pupil to kind old dame nature, the better.

Now we are not going to trouble ourselves to tell you which are the workers, and which are the drones etc., for 'tis your business to learn that yourself. The colony is to be transferred into a Standard hive bye and bye, but before you undertake such an operation you are to get *thoroughly acquainted* with your little friends. You should be so familiar with them in fact that you can lie down in front of the entrance and examine the movements of their antennae with a magnifier as they greet new comers who return with a load of pollen or honey. You should also be able to distinguish at a glance a bee filled with honey from one that is not, that you may be able to detect robbing at its commencement. Nothing but close careful observation will enable you to do this. They will very soon get so accustomed to your presence that they will not be disturbed at all, and will alight on your face when heavily laden as confidingly as if it were their own threshold. You should be able to distinguish at once by their hum or note whether they are in a quarrelsome mood or only busy in the faithful discharge of their duties. We remember well our troubles during our first season with bees; they had been robbing some, and in the afternoon we found a quantity of bees hovering about the entrance, crowding in and out, and making a sad hubbub, as we thought; we so closed the entrance, and then felt sure 'twas robbing for they piled over it and made frantic efforts to get in. Soon another colony was "attacked" and we closed them up and, oh dear, such a worry as we had. As they didn't go home at dusk we let them in and it finally dawned on our understanding that 'twas only the young bees at play, as they almost always do from 12 till 3 or 4 o'clock P. M. We had not then learned the peculiar "robbing note" nor did we know that swarming was always indicated by a sound that a bee never emits at any other occurrence in life, and worst of all we could not distinguish a loaded bee from one that was not. If you learn all these things before transferring 'twill be all the better. A folding, or camp chair as they are sometimes called is very convenient and then 'tis pleasant to take a book or paper and sit by your hive and grape vine. The hum of their industry, to us, is the finest accompaniment for enjoyable reading.

Now both this hive, and the vine are expected to increase and multiply in time, and this vine is to have its one shoot tied to the central wire D, as fast as it grows, pinching off all side shoots after they have made one leaf. When it gets to the top of the trellis, pinch it off also, and it will soon throw out side shoots. Pinch all off again except one on each side near the bottom bar B. Train these by tying, strait out horizontally until they reach the posts, then train them up the posts and pinch them off like the middle one. Now get two more shoots to train up the wires C, and E, and we are done. The future treatment of the vines consists only in cutting the upright shoots all back to the horizontal arms tied to the lower bar B, every winter, and training *two* new shoots up each wire and post every summer, and pinching them off whenever they get to the top.

Next month we'll tell how to "swarm grape vines" artificially as well as more about the bees.

A SCENE IN THE APIARY.

TIME, July 10th, about dusk. Blue Eyes in charge of Mrs. N. is perched up on one side of the extractor bench with one fat arm stretched over to the crank, and while she is enjoying herself hugely in making it spin, Mrs. N. is telling Novice that she will take one of the best $10.00 extractors and *must have it immediately* as she wishes it to keep the baby quiet. Novice however is dolefully contemplating his ankles just now, and seems evidently troubled about some matter more weighty than the simple fact that they are only "useful" and not "ornamental." The real trouble is this: the hives have just been discovered to be a little too full for the best economy, and P. G. in her ambition to have as many hives as possible emptied before dark, persuaded him he could do "just one more." This last one had made such progress in gathering honey, and the Queen had filled such nice combs with brood (they had been unable to repel robbers a *very few* weeks ago) that he took so much time to contemplate the snowy wreathed combs, containing the basswood honey—he called it "dew of heaven" a few days before when an attempt was made to take out some before it was sufficiently ripened, but P. G. suggested that our honey customers might have a decided preference for *real honey*, after they had paid their money, in place of the aforesaid "dew" and so extracting was adjourned until the evening in

question—well, as we said before, he forgot 'twas nearly dark and almost neglected to respond to Blue Eyes' crows of delight which are invariably addressed to her Papa when he is'nt too busy—now before going further 'twill really be necessary to state that Novice wears linen trousers when extracting, for Mrs. N. says if he must go down on his knees so much, something must be worn that will wash; and as the young bees have quite a trick of crawling in inconvenient directions, he always tucks these linen pants into his stockings when at work.

After the last comb was taken out he concluded the Quinby smoker (none had been used before) had better be lighted before replacing them, and by the time this was done it was just about dark enough for the bees to get into that kind of a careless way of stinging promiscuously, when disturbed, any thing that they can see regardless of smoke or almost any thing else. Now these white stockings—for a wonder they *were* tolerably white—seemed to the bees just the thing to "go for," and they did so and discovered a "break in the armor" between his low shoes and the linen pants, protected by only one thickness of thin cotton, *and that is why he is looking dolefully at his ankles.*

Meanwhile P. G. has put the cappings in the wax extractor, tied the cloth cover over the honey extractor, wiped up the floor if any honey had been dropped—by the way Novice says that *she too* got enthusiastic and kept on extracting long after the barrel was full, until in fact a half gallon or more had run over on the floor; but this was probably a little exaggerated on account of his "ankles"—and the Apiary is now quiet. The bees are uniting in a contented hum whose volume once more indicates life in the recently desolated Apiary; Blue Eyes is sleeping the peaceful sleep of childhood, and we, before dropping our pen devoutly hope that all our readers have as abundant cause for thankfulness during the hight of the basswood season as have we.

ANSWER TO PROBLEM ETC.

HAS Problem No. 13 been solved yet? Our bees are bringing in pollen very fast now. In fact the supply seems to be far in excess of the demand; and I could take from each of my hives one frame completely filled with it. But can it be kept in good state until next spring, *and how?*

S. W. STEVENS, Ridgefield, Conn.

Pollen taken out late in the fall will keep safely and will be used at once by bees in the spring in this locality, but we should fear it would get sour or mould if removed in warm weather. Your hives may seem to have an excess to-day yet if examined a week later, when brood is being reared largely, we sometimes find it nearly all gone. We have recently seen a frame emptied of pollen in so short a time that it seemed strange where it could have gone.

ANSWER TO PROBLEM NO. 23.

Queens raised from eggs are longer lived but no more prolific, for the time they live, than an 8 or 10 day Queen. A 10 day Queen will rarely live one year, while an 8 day Queen is good for only about 4 months. By the way, Mr. Editor why is it that Queens sent out by breeders are so invariably short lived? I have had Queens from nearly every breeder in the United States, and with but one exception none of them ever lived to see 16 months. But to return, in 1870 I raised a set of cells from a strong colony and just before the first was hatched, I took them all away and gave them a frame of brood in all stages. They reared about 20 cells, about one third of which hatched in 8 days, the majority on the 9th, and 2 or three on the 10th. They were all small, but little larger than a worker. I succeeded in getting 5 out of the lot fertilized, one on the 16th day after they were hatched, two the 17th, and two the 19th. They were as prolific as any Queens I had as far as I could see, but one died of old age in 3 months, 2 lived nearly 5 months, and the other 2 died during the winter. Queens usually are laying from 7 to 9 days after they are hatched, with us, and if a Queen is not laying within 12 days we always kill her, deeming her worthless. We have repeated the experiment alluded to above once or twice since with the same results. Bees getting but little honey as yet. It rains nearly all the while—ground soaked—Basswood will not be open in a week yet.

G. M. DOOLITTLE, Borodino, N. Y. July 9th, 1874.

DEAR NOVICE:—In answer to your problem No. 23 on the cover of GLEANINGS, for July, I see no difference between queens raised from the eggs, or queens raised from grubs already three days old. Besides I have very often remarked that out of a lot of queen cells, those that hatched last were generally poorest. Every time I have had queens hatched later than sixteen days, they were of little value, while those hatched in ten days proved to be the best. It seems that as soon as the colony finds it is queenless, it gives a superabundance of care to the grubs chosen to be raised as queens. After a few days the care given the second chosen grubs is lessened, and the queens produced are poorer. I can see no reason why a grub three days old would be of less value than an egg, to be transformed into a queen, since if we give the bees grubs of that age and eggs, they will prefer the grubs. I think bees know their business better than we do. Besides it is to-day a well ascertained fact, that the jelly given the grubs, for the first three days after hatching, is the same as that given the young queen; and that the grubs can eat of it as much as they want since they lay in a thick layer of that jelly. CHAS. DADANT, Hamilton, Ills.

We are much inclined to think eggs preferable, and we feel satisfied that the young larvæ should literally swim in the royal jelly just as soon as hatched. That this is not usually the case with the small worker larvæ, observation will readily show. If we wish to grow a strong specimen of any plant or animal, *plenty of food* is the great desideratum. Even *cramming* is sometimes necessary to get the desired result, as in fattening fowls for instance, and if we wish Queens to five four years and to lay eggs up to the figure fixed by Young America of modern times, she should have all the jelly she can possibly use and a spoonful (or less) should be found in the cell after she is hatched. How is it brother bee-keepers, after your Queens are hatched out do you find any food remaining in the cell? Look carefully and report. Again our recent troubles have really been that our worker bees have been too short lived. Now is it not possible that where so many bees are kept in one locality they fail to find a sufficiency of some one of the essentials needed to give them perfection of vigor and constitution. Novice here suggests that the whole trouble may be the want of *salt;* some writers on poultry now claim that salting the hens regularly will surely prevent the Chicken Cholera.

FRIEND NOVICE: Double a woolen cloth and put under your water bottle; and to one qt. add ½ tablespoonful of common salt then your bees will have salt water. My bees took about a gallon a day, when breeding fast last summer. The cloth will soak with water and gives bees a nice chance to suck it out. Put sheared side of cloth up. When getting salt water they got fresh water at the same time so perhaps you had better "rig" two bottles, for each.

J. D. KRUSCHKE, Berlin, Wis.

We have got a salt water jar "rigged" but they don't take to it as yet. We have at times noticed bees when they seemed eager for salt.

Gleanings in Bee Culture,

Published Monthly,

A. I. ROOT & CO.,
EDITORS AND PROPRIETORS

MEDINA, OHIO.

Terms: 75c. Per Annum.
For Club Rates see Last Page.

MEDINA, AUG. 1, 1874.

A. B. J. and *B. K. M.*, were on our table promptly, and the *World* a few days afterward. All good. *N. B. J.*, at present writing has not put in an appearance.

Warranted Queens for 1.50, we think full as cheap as the dollar Queens without warrant, and our old friend Alley has agreed to the former rate for the season. See Advertisement.

"BLASTED Hopes" and doleful visages, have for the past few weeks been giving way to "Reports Encouraging" and bright anticipations of long "Rolls of Honor;" but we're too small to chronicle all of the latter.

A BEAUTIFUL EXPERIMENT—Give a natural swarm a hive full of empty combs, and extract the honey as often as the combs are filled. The nice part of it is, that they frequently give you $10.00 worth of honey in a week after hiving.

WE with pleasure notice that C. O. Perrine has commenced settling up his old debts in a manner quite satisfactory. As he has perhaps bought more honey than any other dealer in America, we shall be quite happy to hear he has regained confidence by an honorable settlement of all old accounts.

CANNOT some of our subscribers advertise bees for sale? We have many inquiries, but cannot direct them where to send. Adam Grimm's notice would do very well for those in that vicinity, but 'tis expensive and risky sending so far. Who will furnish Italian colonies at a moderate price in the Southern and Middle states?

OUR Agricultural exchanges although full of valuable matter, contain little on bees beside extracts from the Bee Journals. The *Rural New Yorker* contains an excellent plea, from a dealer in Groceries and Provisions, for pure honey, and prices within the reach of the masses. Had they given his address *in full* we might have shown him that laborers were already in the field.

KIND Uncle Samuel now carries merchandise of all kinds, as well as seeds and plants, for *eight* cents per lb., and 4 lbs. may be sent in one package, instead of 12 oz. as formerly. In fact we could send a Simplicity hive by mail now, if any one should desire; the postage would be just about as much as the hive, viz, 90c each, and they would have to be sent in about six pieces. But half the amount mentioned on our price list for postage on the articles we advertised, need be sent for postage hereafter, with the exception of seeds, which remain as heretofore.

OUR enterprising friend Muth, of Cincinnati, sends us a sample of his 50c honey knives which we really think will prove "as good as any" for uncapping at least. It certainly cannot boast of much pretentions to beauty in its "get up," but it has a fine steel blade very thin, and sharp, ready for use, and it is fixed very firmly in its plain wooden handle. For the business of uncapping only, we do not see how it can be improved; but for other work, such as transferring etc., the long slender blade and peculiar handle of those we furnish, will be, we think in some respects, preferable. We wish Mr. M. a large trade in them, as we do every one, who aims to cheapen Apiarian supplies.

THE Quinby Smoker, has become almost indispensable to us. 'Tis true it bothered by going out at first but since we gathered a supply of "punk" we have gone our way rejoicing. This can be gathered in any forest containing maple stumps or logs; 'tis a species of fungus that grows out of them somewhat like mushrooms. Carry along a heavy hammer, for they are hard to break off; when they are first gathered they are to be chopped in pieces small enough to go into the smoker readily, and dried thoroughly, in an oven or otherwise. This substance burns longer than any thing else with which we are acquainted and never goes out where it can have even a very small supply of air. Who will put some in the market, nicely prepared?

AFTER a Queen hatches, she usually leaves the cap hinged to the cell like a door, and it often springs shut after she has passed out. Now the bees sometimes wax this cover down again, and the Apiarist looks at his cell in disappointment, for several days perhaps, waiting for his Queen to hatch, while she is crawling about the hive as unconcerned as can be. We mention this because several blunders have been caused thereby, one of which we were a party to, in fact we assisted in persecuting a princess, as an interloper, all because her cell seemed to be unhatched. After she had flown away from such rude treatment and was hopelessly lost, 'twas found that the innocent looking cell was only a hollow fraud with the aforesaid door shut.

ANY colonies not having a "hive full" of bees should be fed at once, if honey has ceased coming in, to keep brood rearing under full headway that we may have plenty of bees for wintering. Never lose sight of the fact that whenever brood-rearing is stopped, if it be for ten days only, it will produce its effect, it may be months hence, perhaps while we are getting them through a snow-storm in April, but the gap will come where bees too old, and brood too young, blocks progress for the time being. Give them all they can use without filling the combs so as to crowd the Queen; this can only be determined by examination, say, once in three days. Use sugar syrup, and should you thus give them their winter supply it will be in the best shape possible, and just as they naturally have it.

SENDING QUEENS BY MAIL, Mrs. Tupper thinks to be wrong, as there have been *rulings* by the assistant P. M. G. to that effect. If such of our readers as are interested in the matter, will read Vick's Floral Guide No. 3, they can see that this is not the only case in which the acsurdity of some of these "rulings" has caused them to be ignored by every one, unless it be occasionally some P. M. who imagines it a duty to show his authority by hindering the progress of a harmless and innocent branch of agricultural industry. We can send queens safely to Texas now, for one cent providing no writing is put in the package; if sent by express the charge would be a dollar or two. Are we to understand a dozen bees put up in a stout metal cage are to be an exception to all other kinds of produce and merchandise? Perhaps the new law that took effect July 1st, mentioned elsewhere may include queens. We hope so.

COMB BUILDING; HOW TO GET ALL WORKER COMBS ETC., ETC.

NOVICE:—Can you tell me why my bees build but very little comb, and why that little is ⅗ drone comb. I have put them into double Simplicity hives and given them what empty combs I had and they have increased in numbers beyond my expectations, but when I put in empty frames they leave them several days before commencing work on them, and then start very reluctantly and nearly every time begin with drone comb. As I am anxious to get worker comb, I have tried cutting out the drone comb but to no purpose, they immediately commence drone comb again.

We have never failed in getting bees to build comb rapidly, when we could secure warmth, plenty of food, and plenty of bees. It does not seem to be sufficient, that they have an abundance of stores in the hive, but they must be adding to their stores daily; in fact we have thought they only built comb when there seemed a probability that it would be needed to hold their provisions.

One other fact must be remembered, and that is, bees almost cease comb building when they get the swarming fever; in the case mentioned above, we infer that our friend neglected to use his extractor, until the bees had decided to swarm and then they would not give it up. When honey is coming in briskly, we would empty every comb, and commence soon enough too, to discourage all attempts at swarming.

About the worker comb: We too have had nearly all the combs built this season mostly drone comb, and after hearing that friend Dean of River Styx, knew how to induce his bees to build such comb as he desired, we paid him a visit with this particular idea uppermost. Sure enough his bees *were* building the whitest straitest, and most beautiful comb we ever saw in all our experience. We were told to examine any of his hives we chose—there were 40 or 50—and we found entire worker comb in almost all. One colony it seems had disobeyed orders and had made a beautiful oval disc of drone comb; when he took it up quickly we were surprised to see him turn it over horizontally (in a way that we might expect a novice to handle new combs, but not an old bee-keeper), and coolly break it off for them to commence over again.

"But friend D. they will only build more just like it."

"No they will not; I will take away some more of their combs."

"But they have only three besides the empty frame now."

"Then they shall have only two."

"And if that don't do."

"Then they shall have but one; but 'tis seldom necessary to cut them down so close as that."

"But friend D., you would lose much honey if you deprived your heavy colonies of all but one or two combs?"

"That is just the point; I make my nuclei and weak colonies do all the comb building, and they will make quite a number each, during the season, besides storing a goodly crop of honey."

Our readers should remember that division boards were used—Gallup hive—and each of the comb building nuclei was crammed full of bees, but a happier and more peaceful Apiary 'twas never before our lot to see.

Two or three swarms also persist in making Queen cells and wanting to swarm, and I keep cutting them out. In two instances where I overlooked Queen cells they sealed them up and cast very heavy swarms; but I returned them again, cutting out the Queen cells, hoping to force them to make comb. The combs are now literally crowded with bees. The honey product has been very light but all the swarms have had some capped honey all the time. Would it have been better to let them swarm? Have not extracted any honey yet.

The trouble is again that you didn't use your extractor; take their honey *all away*, and they can't swarm. Yes, 'twould have been better to have let them swarm after they had got the fever so badly; you could have given them their old hives combs and all, in a new location, and they would have proved immensely industrious after they had gone through with the "programme."

Why is it that all at once most of my bees are so cross? Thus far during the season I have been able to handle them whenever I chose without any protection for face or hands. But for the last three days a little smoke seems to irritate them instead of quieting them. I have been just as careful in handling as ever, but all to no purpose. They come at me in a perfect swarm and will not leave till I go into a dark room.

Perhaps half our readers are in the same predicament; after the Basswood failed suddenly, they suddenly became as cross as if they had been stopped in some wholesale robbing raid, as in fact they have, and all we have to do is to keep cool and not tempt them by unguarded bits of comb and drops of honey, until they get over it. Drive them back with a good lot of smoke and make them fill themselves with honey if you can. Stings will be more liable from bees from other hives that are trying to rob them. We have to-day—25th,—only been able to see to our Queens etc., early in the morning, and were then obliged to desist after working about an hour on account of other bees rushing into a hive as soon as opened. We shall resume our work again about sunset or a little before.

What shall I do with drone comb when a part of a frame is filled with it? If I cut it out the bees persist in rebuilding with drone comb or leave the space empty.

Cut it out and insert a piece of worker comb, or have it filled out in a weak colony on the plan given.

We cannot answer the following question positively but think the Queen's fertility would not be impaired. At any rate we give it as

PROBLEM 24.

Will it render a Queen less prolific to keep her for a length of time in a small nucleus hive where she can lay but a few eggs each day than she would have been if she had been given to a large swarm as soon as she began to lay?

How do you fasten a division board in a hive to keep it in place?

Hang it (the board) as you do the frames.

Can I winter bees in double width Simplicity hives?

"Answer next May. Don't know nothin' 'bout winterin'."

The above was Novice's reply before we had time. We think the double hives will winter equally well. Should there be a great quantity of bees we would leave them on their summer stands, and house them only when they seemed to need it, if they did at all. Perhaps Novice is right after all.

Will it do to take nearly all the honey from a hive when it is coming in fast?

Every drop we should say. *Our* bees always get more in fifteen minutes or less.

Now who hasn't had just about the same trials as S.? It reminds us of our own work over again. The last we hear of him is as follows; we hope he bears it with resignation and will "hunt up" where the honey comes from.

July 23rd—I have commenced extracting—the first this year—took 44 lbs. from 4 hives. Not ¼ of it was capped but it is quite thick. Several other swarms are filling up fast. It is very dry here, I don't know where they get their honey.

JOSEPH SINTON, Ithaca, N. Y. July 10th, 1874.

HONEY COLUMN.

THE *A. B. J.* gives the following in regard to honey buyers.

CHICAGO.—Choice white comb honey, 28@30c; fair to good, 24@28c. Extracted, choice white, 14@16; fair to good, 10@12c; strained, 8@10c.

CINCINNATI.—Quotations from Chas. F. Muth, 976 Central Avenue.

Comb honey, 15@35, according to the condition of the honey and the size of the box or frame. Extracted choice white clover honey, 16c. ₱ lb.

ST. LOUIS.—Quotations from W. G. Smith, 419 North Main st.

Choice white comb, 25@29c; fair to good, 16@22. Extracted choice white clover, 16@18c. Choice basswood honey, 14@16; fair to good, extracted, 8@12c; strained, 6@10c.

NEW YORK.—Quotations from E. A. Walker, 135 Oakland st., Greenport, L. I.

White honey in small glass boxes, 25c; dark 15@20c. Strained honey, 8@12c. Cuban honey, $1.00 ₱ gal. St. Domingo, and Mexican, 90@95 ₱ gal.

The Chicago Honey House, 360 Wabash Avenue, Chicago, Ills., has always been prompt and reliable we believe.

B. K. M. mentions that E. C. Hazard & Co. 192 and 194 Chambers St. N. Y. advertise for 10,000 lbs of honey, but as this amount would not cover the present crop of Medina Co., we think perhaps 'twill be as well to advise, as heretofore, that our friends develop their home market. After your honey is stored in barrels, place them in a cellar or away from the frost, that the honey may not candy too soon, and then draw it out by a suitable molasses gate into quart fruit jars, or jars made expressly for honey, and after it is neatly labeled leave it for sale at your neighboring stores and groceries, for ten miles around if need be.

If they are kept supplied *the year round*, an astonishing quantity will be sold. We sell such jars for 75c., and allow 10 per cent commission to the dealer when it is left for sale. This is considerably better than is usually paid for it by the barrel. We would respectfully refer dealers to the following list of subscribers who have reported.

Could you tell me who would pay cash for honey on receipt of same, or at Depot here. I wrote to the Chicago Honey Co., but get no answer. I will have over 1000 lbs. Basswood honey, I would sell at 14c.

R. S. BECKTELL, New Buffalo, Mich.

We have I should think a ton, perhaps more, at the present time of very nice honey.

M. D. MILLER, Peninsula, O.

11 colonies this Spring, increased *to date*, to 24, and extracted 985 lbs. honey. JOSEPH M. BROOKS, Columbus, Ind. July 20th, 1874.

FRIEND NOVICE:—My colonies (19) all came thro' winter in moderate condition. I have at date extracted 1060 lbs. honey (nearly all clover), for which I will take 18 cts. per lb. It is in wax coated barrels.

Wm. HARRISON, Hopedale, O.

A. I. ROOT & CO., SIRS:—We have not been in the habit of giving our reports to the public, but if they will be of any service, we are pleased to do so.

We have this year four Apiaries which have produced as follows:

	lbs.
East of Oberlin 1½ miles, 55 stocks	1750
West " " 3 " 36 "	2100
Greenfield, Huron Co. O. 28 "	1400
Freedom, " " " 74 "	4200
Total	9450

We expect to extract about another barrel from our Apiary east of Oberlin. Most of our honey is from Basswood. We hold it at 20c per lb.

We are preparing to ship a car load from here to Henry Co. on the 28th of this month, where we expect them to gather as much during the fall as they have done during the summer.

NUNN BRO'S & Co. Oberlin, O.

OUR MEDINA CO. HONEY CROP.

Have increased from 32 to 80, and taken 2000 lbs. of honey. E. C. BLAKESLEE, Medina, O.

Have increased from 14 to 29, and have 500 lbs. of honey. WILLIS A. PHELPS, Medina, O.

Have increased from 35 to about 50, and have 4 barrels of honey; about 1500 lbs. of honey nett.

G. W. DEAN, River Styx, Medina, Co. O.

I have about 500 lbs. clover and basswood, mostly the latter, for which I want 18c.

JOHN WILLIAMS, Marr, Medina Co., O.

I have taken 53 gallons (about 580 lbs.) out of 20 hives, keeping some for box honey.

JOHN W. WHITE, Chatham Centre, Medina Co., O.

I have taken 4000 lbs. from 61 stocks, and have increased my swarms to 90 in number. All my hives are well filled with honey, more than I shall want for wintering. W. H. SHANE, Chatham, Medina Co., O.

I have made good use of the extractor I bo't of you. I have extracted 180 gallons (nearly 2000 lbs.); 80 from my own, and the balance from my neighbors. Price 18c in bulk, or 20c retail. I have also 150 lbs. box or cap honey. I could have taken a good deal more extracted had I not waited for box honey. My better half thinks we have found the land of Canaan, which was to flow with milk and honey.

WM. PAYNE, Spencer, Medina Co., O.

We have about 500 lbs. of white clover and basswood honey which we will sell for 20c per lb. The bees do not seem to work much on hemp yet, if they ever do we will write you; we have our bees and hives and also a spring wagon all rigged to take our bees to the swamp when the time comes; our wagon holds 14 hives without piling any on top of others.

F. R. SHAW, Chatham, Medina Co., O.

I commenced extracting about the middle of June after Alsike clover blossomed. In three weeks I extracted not less than 1500 lbs. of clover and Linden honey of excellent quality. Price for honey is 16c per lb. I had last fall 35 stocks, lost none, they were all healthy when spring came. They are all italians. I have increased them to 55 by dividing.

A. A. RICE, Seville, Medina Co., O.

The above foots up a little over 13,000 lbs. and yet does not include several who use the Extractor, who have not reported as yet. If every county would do as well, and we know of no reason why they should not, honey would be as common an article of food as butter, perhaps. We must confess to a feeling of satisfaction in receiving these reports. Most of the gentlemen named are busy farmers, and yet their bees were wintered almost without loss, although at least four of them used the Extractor last season as closely as they have this. Do you ask if there have been none who got no honey? Yes, but they have box hives and box honey, or rather don't have any honey at all, this year, while every one who has movable frames and an Extractor has had a good yield per hive.

About 20c per lb is wanted, unless it be friend Rice, who will doubtless dispose of his quickly at 16c.

Heads of Grain,
FROM DIFFERENT FIELDS.

A. I. ROOT, Dear Sir:—If Bee-keepers are as busy as we are this warm weather you will not hear much from them. We are writing from our extracting room where we keep one eye on the bees through the wire screens and use the other one to guide the pen.

We pride ourselves on a comfortably arranged extracting room. Our table is about 7 ft. long by 2 wide set right in front of the reversible wire screen window frame and has a boxed off apartment at one end big enough to hold the extractor and just high enough to let a 45 gal. bbl. under. We did try to have it arranged so that a little wooden boy (or similar device) would kick up his heels and notify us when the barrel was nearly full, and he didn't work worth a cent, so for want of time to get him fixed just right, we had to discharge him and rely on a gimlet hole bored so the honey runs out just enough to notify us when the barrel is nearly full) and is caught in a pan.

We have used a Gray & Winder and other extractors but never had one to suit us so well as our old home made one, fixed over with your improved gearing and frame.

Our cappings drop through a hole cut in the middle of the table and are caught in a vessel set for the purpose.

We can attest to the usefulness of R. H. Dickson's frame racks, as we have four similar ones in use, on which we carry 14 or 16 frames as easily as 6 or 8 formerly. In regard to extracted honey—we will sell most of ours by commission put up in neat jars holding from ½ pt. to 2 qts.—some four or five sizes. We bought our glass ware at Pittsburgh from some of our old friends. Thos. J. Walton, Salem, O. got us up some labels of our own designing partly, at $3.75 per thousand. By placing the label at a distance, you will notice the advantage of the large letters in bronze.

Our apiary is laid out after your hexagonal plan, and we like it very much, being much the handiest arrangement we ever had. Our 115 Concord vines are growing beautifully.

We use a Langstroth frame from necessity, will probably continue to do so, although we would otherwise willingly conform to a standard, for we think the idea of Apiarians arriving at some degree of uniformity, an excellent one.

Our hives range from 10—12—14 to 20 frames, the latter of which we had adopted before the "Standard hive" articles appeared, as best suited to our use. We thought then that the 30 inch idea was large but it has been growing in our head and has not diminished since, for we now find it hard work to keep our 20 frame stocks from casting swarms.

Now I must tell you all I know of smokers. One of our visitors wanted to know on hearing that we burnt "Buffalo chips" if we "sent West for it?" That's just where we get it. After a dry spell we take our basket on our arm and "go west" to the barn-yard or pasture lot and fill it with chips. Those a couple of inches thick, sawed into strips, leaving each piece a couple of inches square, when dry are splendidly adapted to to the wants of the Apiarian. By pouring from the benzine jug a few drops it can be lit in a minute's time, will burn nearly all day, giving the best kind of smoke, and scarcely ever blazing unless caught by a high wind. We keep ours constantly burning while going the rounds, and it is then ready for use when we run across one of our hybrid stocks that want to go for the eyes. When one gives out we lay the coal remaining, on the end of another and thus keep the smoke going.

Our honey season still continues good and the honey is now nearly as clear as water, and of good consistency. We have taken over 200 gallons (and ready to go at it again) from 43 colonies.

We will have all our bees pure before long and hope to enter the field with good pure stock next spring, and not a black bee within several miles of us.

Possibly we may enter the $1.00 list next season for we like the fun of rearing Queens.

Please send me a few Queen Registers and find enclosed 25c. for same. Yours respectfully,

Indianapolis, Ind. June 28th. D. LYONS BROWNE.

I also have one item on early Bee Pasture which I consider of value, if you are of the same mind, you can publish it for the benefit of the Brotherhood. You are aware that in the West and East perhaps, growing of forest timber is becoming part of the farmer's occupation, and Maple is one of the kinds most used; now if bee-keepers will go into the plantations of young Maples and trim off small limbs, or wound in any other manner the trees early in the season, the sap will flow down the trunk of the trees forming a syrup which is excellent for the bees, comes when we most need it, no danger of drowning the bees and it will not injure the trees in the least.

JAMES SCOTT, Epworth, Iowa.

A very good idea without doubt, and the blossoms of these young Maples are also an important source of honey, when the weather is such that the bees can gather. Would not letting the sap run down the trunk be a wasteful way of doing it and would it not induce the bees to go out in unsuitable weather? you see friend S. we feel like a "burnt child" in regard to the latter idea. We would hazard the suggestion that it *might* injure the trees afterward, if we hadn't raised so many objections already, but we heartily advise planting forest trees by all means. Our 4000 Basswoods are looking beautiful now in spite of the abuse the grasshoppers gave them last season. We have just had them trimmed up and the ground spaded around each one and they are making a fine growth.

DEAR NOVICE:—GLEANINGS for May (the missing number) is at hand. A postal card is not half big enough to express my sympathy on; "I know how it is myself." Four years ago I lost almost all my bees—cause—late transferring. I am satisfied that you are right, that lack of pollen did the business. We are not ready for you to abdicate the editorial chair yet. If we can find the reason your bees stored no pollen, your loss may be more useful to us than Bolin's success. You say that for the last three years you have found but little old pollen in your combs in the spring. Is that not about the time that you have run the extractor exclusively, and fed up in the fall? Is it not barely possible that bees, when kept robbed with the extractor, in their eagerness to store honey for winter neglect to store pollen, except for immediate use? I robbed one stock last season of all their honey as fast as gathered; they gave me double as much honey as any other stock, and kept up the supply of brood, but as soon as flowers failed and the brood was all hatched I gave the *bees* to an adjoining stock. An examination of their combs to-day, shows them to be perfectly empty—no pollen—a fact I never noticed before. If we could feed pollen bad weather, all would go well. But if your system of extracting *all* the honey, and feeding for winter on syrup, makes us entirely dependant on an early spring for success, I think we had better "go slow" in this climate, where early springs are an exception. The fact that Bolin's bees were wintered on natural stores is proof to me that they also stored pollen.

I do not use the extractor as a general thing during the last half of July, and the first half of August, (the time Indian corn is in bloom) and when I begin again I find the combs half filled with pollen.

I think more of my bees than of any thing else I have, (wife and children excepted) and I tremble lest I lose them again. Bingham of Mich., I see has come to the conclusion that it is all *luck*, and I was always an unlucky chap, so you had better reserve a place for me in "Blasted Hopes" corner.

Heavy losses occurred in this vicinity this spring, chiefly from attempting to winter weak swarms. I lost three such, all the weak ones I had. My strongest swarms wintered best, though their combs moulded some, but they soon cleaned them. It is very unfavorable weather now for bees, cold—rainy—windy, and has been for two weeks. I had my bees in prime order for honey gathering—made some swarms the 26th of May—was raising some Queens—had thousands of Italian drones, and no black ones to speak of—had begun to "go" for some of the strongest a la Novice to prevent swarming, when this bad weather came on, cold as March. I have done all I could to keep my bees up, but they are killing drones, destroying Queen cells, throwing out brood, and cutting up Jack generally. If the weather don't change I will be put back to the 1st of May. "*Sich*" is bee-keeping. Yours truly, R. L. JOINER.

Wyoming, Wis. June 14th, 1874.

This is a new view of the matter we must confess, but it will hardly apply in our locality, for we seldom if ever use the extractor after

the middle of July. Besides, box hives have gone the same way in many cases.

But there is nothing like ones own experience for a school; and I had one the other day. I had a swarm put into a hive containing 13 frames (Standard) and had it brought to me the next morning—they had swarmed out twice before and returned to old hive. There was a ¾ inch hole in each end of the hive for ventilation and I thought I would leave it closed until night for safety; and to give them something to keep them quiet, I laid a piece of comb honey on quilt and turned the corner up to give them passage. There was plenty of comb fastened in the frames. At night I opened it and they were like so many drowned rats, only a few bees in crawling condition and they were not so, very long. Well, that experience only cost me $3.00 cash, and a good deal more *chagrin*. But I will try to save a more valuable swarm some time. [Don't tell anybody what a novice I am.] E. HUNTER.
Manchester, Mich.

But we fear we shall have to tell it often, for some one is sure to "cut the same caper" every little while, during the warm weather. A new swarm is always so loaded with honey for their new home that they can bear very little confinement, and they have about as little need (for the first day) of honey in the comb, as of a work on mathematics to direct them in building their cells properly.

Are the *curved* end honey knives *of Winder's*, patented?
On July 6th, had *two* swarms of bees come off from *one old* stock, one at about 10 A. M. and the other about 3 *P. M.* I did not intend they should swarm, but they beat me in time. F. W. CHAPMAN, Morrison, Ills.

We should suppose not for if it is, the patent certainly cannot "hold." Quinby, first used and recommended knives with a curved point and they were described and advertised some time before the one you mention. Two swarms from one hive is not very strange if they were second and third swarms, but if the first of the season 'twould be rather unusual in one day.

My bees nearly all died two winters ago leaving plenty of honey, but are making up for it this summer. I have had 5 swarms from one, all good, and 20 lbs. box and 21 lbs. extracted honey thus far. Can't say what I may have yet. May the wind-mill continue to run.
A. V. CONKLIN, Waldo, Ohio.

What could I get for the yellow wax made into small cakes as stated in *A. B. J.* Vol. 7, page 133. It would be some work to cake it, but still if it would sell for what he thought it would, it would pay well. Can you give any information on the subject?
WESLEY BROWN, Homer, N. Y. July 10th, 1874.

Some time ago we made some pretty little cakes of wax with a loop of narrow scarlet ribbon fastened to each by pressing the ends into the wax before it was cold. The cakes were made by pouring it into small fancy dishes, they can be had very cheaply of the tinsmiths, they are called "patties." Now these cakes to be suitable for a lady's work box should not exceed ½ or ¾ oz. each, and they retail for 10c. As the French wax sold for this purpose is much adulterated, a pure home-made article would doubtless find a ready sale. The best way, as with honey, is to supply your home market first. Take a dozen or two made of nice wax, (that from the "cappings" is beautiful) to your merchant or grocer and give him a commission for selling, and if you are not careful he will soon be out, as we are at this minute; we haven't a single cake left with the "scarlet ribbons."

Do the Rocky Mountain bee plants *Celome integrifolia* and *Leophanthus anisatus* yield fodder for cattle, or honey only? H. A. S.

We believe, nothing but honey. If we are wrong will some one please set us right.

We have no Vetches but can get you some if you wish, they do not amount to anything in this climate, it is too hot. B. H. STAIR & Co.
Cleveland, O.

The above was rec'd in answer to an inquiry from us, sent them in April.

In using the "Standard Hive" for box honey would you advise putting boxes *in* the ends of hive *or* on top of frames? O. L. BALLARD, Malone, N. Y.

We think the most comb honey would be secured by taking out frames as fast as filled and sealed in either the back or front of the hive; taking care that they had clean new comb for the purpose that had not been used for brood rearing.

Please tell me through GLEANINGS the best way to remove the bees from the comb before extracting. If you ever told us I don't remember of seeing it. The Italians stick awful tight don't they?
ALFRED MCMAINS, Charlton, Iowa.

Provide a bunch of Asparagus tops composed of three or four stalks as thick as a lead pencil, and with broad bushy tops. Some fine annealed iron wire cut in pieces six inches long, is handier than strings for tying them together, and they are to be tied in the middle of the top as well as where held in the hand. After shaking off as many bees as you can, take the brush in the right hand and roll it so as to roll the young bees off before the entrance, and they will crawl in safely. If your brush gets smeared with honey, rinse it off in a pail of water. It may be used until so dry it breaks up.

We now rejoice—or rather we feel doubtful over 73 stocks of bees. Sweet clover, as well as their watering place covered with the busy little fellows. We have just been giving one contrary swarm instructions not to build their combs across the frames as they were doing. D. P. LANE, Koshkonong, Wis.

I think more than one half the bees in this country died in April for want of supplies. It rained all the time so that they couldn't get out. Blooms were abundant through the month. I found out in time that mine were dying and saved them with syrup.
W. F. LEWIS, Baldwin, Miss.

If *we* could save our bees by simply feeding them we should be quite happy indeed.

We cannot imagine such a case as the lack of pollen, we generally think we have too much; I have cut out whole sheets of it but I won't do so any more. Bees are doing splendidly here, I have taken out 840 lbs. so far, some of it, perhaps 300 lbs., was from the fruit bloom. It is not pleasant to the taste and very dark. clover is fine and we had a fine shower Sunday that brightened things up very much; some of my hives filled the upper story in four days, you seldom see it better than that. H. E. CURRY, Cin. O. June 2nd.

Bees in this locality have been doing but very little good. I lost 4 colonies out of 6 in the last season, and 4 out of 8 in '73. Had half changed to Italian and have lost them all. They cannot stand the cold weather that we have in this part of the world, and all that have perished for me, were very rich in natural stores, hoping to have better success in future, I am, yours truly, S. H. SMITH. McKeesport, Pa.

We think friend S. you are a little hasty in deciding that Italians are less hardy than blacks; such sometimes seems to be the case in a few instances, but taking the general average where conditions are equal and we believe the reverse will be found the rule. Where Italians are not given sufficient room they often prevent brood-rearing by filling the hive completely with honey, and under such conditions they are insufficient in numbers

when winter comes to keep up proper temperature, and of course must perish. Was not such the case with your own? The extractor is almost the only remedy for such troubles.

FRIEND NOVICE:—Those eggs came to hand after 60 hours from the time you mailed them, but the comb, box and all was pretty much smashed fine; still I have from one end of it, where there was a cell or two which was not smashed down to the base, two larvæ hatched, but no Queen cells found over them as yet. Now I want you to put me up some more as I direct: On the morning of the 24th of July put a nearly new worker comb in the centre of the brood next where your imported Queen is. Look at it on the morning of the 25th and if there are eggs in it send them to me by the first mail on Monday the 27th of July. Now how to put them up: Make a box of wood ½ inch thick. Make it three inches square by two inches deep. Have the top or cover go on with screws so as not to jar the comb. Now go to the hive and get the oldest eggs in the comb above mentioned, cut out a piece two inches square and wrap it up in soft paper so you cannot see a bit of comb. Put ½ inch of cotton wadding in the bottom of box, put in comb and tuck in wadding on each of the four sides, then put in wadding until box is full. Screw on top, and send. Please excuse us for becoming teacher to an older member of the bee-keeping fraternity, for we have faith that if the eggs are put up so they will not jar we can hatch them, for since we sent you for the eggs just received, we have placed a frame of worker eggs in a hive and and had them hatch all right, after they had been left in our shop away from bees, *eight days*. You ask on your card if we are certain that eggs will hatch after being kept a month. We will give you the facts. In using our small hive described in *A. B. J.* we sometimes get drone brood in boxes. On finding such we set them out, thinking to spoil it and left them out in one instance nearly a month, and then put them in the hive again and to our surprise the next day but one found plenty of larvæ in the boxes. We now take precaution to see that the eggs are hatched, and then we can set them out a day or two until the brood suffers when all will be right unless the Queen lays in them again.

The poorest season so far, we have ever known. Our hives will not average 3 lbs. of honey in each at date. Cause, cold and wet. Basswood just opening and we are hoping for better times.

G. M. DOOLITTLE, Borodino, N. Y. July 18th, 1874.

P. S.—In the comb of worker eggs referred to above the bees only hatched those that would hatch in 24 hours. The rest were all cleaned out.

No excuse is ever needed friend D. for presuming to teach us; our capacity for taking in instruction is boundless, and we will faithfully perform our part of the experiment so long as there is any hope of success. When we are desired to send the comb in such wooden boxes, as are described we shall have to request that about 10c. additional be sent.

The following is just at hand. Our opinion is that the whole secret is warm weather. Such as we invariably have in July for instance.

Hurrah! Off with old hats and new. We have two fine Queen cells nearly ready to seal, out of our two larvæ, hatched from the comb of eggs we received from you all smashed up. Our heart went down to our boots when we found that the bees had taken all the larvæ out of the comb we had away from the bees 8 days, and we expected our imported larvæ had fared the same; but we really have two fine Queen cells from them. G. M. D.

A. I. ROOT & Co.—There now, you have told on me for losing my *two hundred and fifty hives of bees* last spring, but I do not mind that so much since you did not tell the fact that I lost near *four hundred* colonies the previous spring and near *two hundred colonies* the spring before that, not leaving me *five per cent* of my stock each time. I started with 17 hives this spring and now have 80 good colonies from them besides taking fifteen hundred pounds extracted honey, and now I will give any of those who *know* the cause of, and remedy for the bee malady, two dollars each to ensure all my good colonies to live over until next May, and I used to winter so safely that I would not give 20c. per hive for insurance. Two thirds of the bees in this region have swarmed and perhaps one half of them have made some box honey. Clover was entirely gone July 1st. Basswood we may say commenced yielding that day and lasted until the 9th.

R. WILKIN, Oskaloosa, Iowa, July 16th, 1874.

From seventeen to *eighty*, and 1500 lbs. of honey is certainly ahead of us friend W., but we think you mentioned having purchased Queens for them, in a former letter. If Basswood only lasted *nine days* with you, we are certainly ahead here, if we are not a Basswood country; we have had almost three weeks and considerable is gathered yet from occasional trees that blossom late.

FRIEND NOVICE:—Our 100 colonies have increased to 125, mainly by natural swarming, and that notwithstanding all the opposition I could bring to bear, short of extracting the honey from the breeding apartment, which I did not wish to do, as I wanted all the box honey I could get. Bees obtained more honey than usual from fruit blossoms, but the yield from white clover is comparatively light in this section, owing to the clover being badly winter killed, and also injured by drouth. In many places bees obtained just honey enough to keep them breeding and swarming, and where they were permitted to swarm at will the yield of surplus honey must be light. A friend told me he knew six swarms to issue from one of his stocks, and he did not know how many more came out and went to the woods.

I only permitted my colonies to swarm once, with the exception of one which swarmed twice, consequently they were full of bees when Basswood bloomed, and worked on it accordingly. All of my old stocks, with one exception, and many of the swarms are at work in surplus boxes. I have from 6 to 22, 4 or 5 lb. boxes on each. I have taken off a few hundred pounds and there are more ready to come off as soon as I can find time to attend to it. But most of the boxes are not quite ready to come off yet, as the honey is not all sealed up. Bees are beginning to work on the second crop of red clover where it was cut early; and if drouth or the grasshoppers do not use it up as they did last year, I hope for a fair yield of honey, notwithstanding the unfavorable spring. The one old stock that has not worked in surplus boxes was the weakest I had in the spring. It has become quite strong, but I have kept it as a kind of reserve upon which to draw whenever I want a frame of brood or honey for any purpose.

Honey seems to be thicker and heavier this year than common, as boxes that seldom contained more than four lbs. hold almost five. The dry weather evidently had something to do with it.

All of my old colonies have too much honey in the breeding apartment; many of them twice what they should have, and it will have to be extracted after that in the boxes is sealed up. I do not wish to do so now, as I have found by experience that extracting much out of the breeding apartment during the working season always detracts from the box honey.

JAMES BOLIN, West Lodi, O. July 20th, 1874.

We must say friend B., that we are disappointed in your report. We had fixed our opinion on having you report at this date about 10.000 lbs of extracted honey, or 100 lbs. to the colony on an average, and here you have been allowing your 100 stocks to "fool away their time" (begging your pardon) on box honey. Of course, you may know best. Our bee-keepers here, who brought their stocks through in any kind of shape are making a good yield with the extractor, but taking an Apiary through, they would not get one fourth the amount in boxes, so far as we can learn; and yet the prices are constantly quoted in our Cleveland papers at nearly the same. Thick, well ripened, transparent honey, is rapidly making for itself a market at a price but very little below box honey, and if you do not report at least 6000 lbs. of box honey we shall think you have erred in *summer* management, whatever may be your skill in wintering. There! we'll stop now lest some one may think our 2½ barrels of honey and 45 colonies, are making us "sassy" again.

Out of fifteen colonies all of which came through the winter in good condition, I lost eleven in the month of April. I had set them out on the summer stands about the 15th of March, and during the long cold weather that ensued, the hives not being shaded from the sun shine, the bees would fly out and become chilled and be unable to return. Before I was aware of the fact I lost eleven. Others in this vicinity have been equally unfortunate; one man lost forty colonies, about all that he had. WM. CALDWELL, Elmore, O.

My bees are doing splendidly so far this year, I started the season with 17 and now they have increased to 35, all natural but 4, and still swarming every day. Mine are all Italians but 2, and they have not made a move in that direction yet. Black bees about here are doing nothing of any account, and several have complained that the worms are destroying them all. Mine are the only Italians within about 15 miles of here. E. A. SHELDON, Independence, Iowa.

Whatever the Blacks may do in early spring, Italians are certainly far ahead in the honey season.

You say on first page of July No. of GLEANINGS "Hives that have been destitute of bees ever since freezing weather **** may be considered safe." 32° F. is freezing, and to my certain knowledge a temperature of 14° will *not* kill the moth germs in a certain stage, but 8° or 10° will do it sure. This is not guess work but a fact known to me by actual and extremely careful experiment. Hives were kept air tight after an exposure of 14° and were nearly destroyed.

Yours respectfully, JAMES HEDDON.

Dowagiac, Mich. July 1st, 1874.

We thank you for the correction, and acknowledge our error. We only knew that combs kept in tight hives over winter in our barn were never troubled, but if placed there when taken from the hives in warm weather, there was sure to be trouble.

My opinion is, the large hives will be no remedy for the common malady in bees; with me large colonies fare full as badly as small ones. Scarcity of bee-bread may have something to do with it, yet I think but little. My bees had badly failed long before breeding had ceased; almost all my hives had bee-bread left.

R. WILKIN, Oscaloosa, Iowa.

I put six stocks of Italians in cellar last fall, after extracting all natural stores and feeding sugar-syrup. They all wintered well, but found one Queenless this spring; united it with another stock and they have done well. Made five new swarms three weeks since, raised fourteen Queens and have extracted 95 lbs. of honey at present writing; shall expect to get more soon. White Clover is abundant here now and Basswood promises well. You will see that I have no reason to be discouraged with bee-keeping.

E. W. POOLE, West Richfield, O. June 29th, 1874.

1. Ought surplus receptacles to be put on or over a new swarm before the main frames are pretty well filled?

2. How do you manage to make the bees build their combs straight? You somewhere say we must watch and compel them to make their combs straight.

STEPHEN YOUNG, Mechanicsville, Iowa.

1. If our friend will excuse the liberty we would advise him to put his surplus receptacles where neither he nor his bees will ever see them more. So far as we know they rarely use them until the hive is crammed full of honey, and then they often lose another day or two of the best part of the honey harvest, waiting to think about it, and then about half the time conclude not to work in boxes at all. A couple of our neighbors who have used the extractor successfully for some years, thought they would try a few hives for box honey this season, but the sight of hives filled and ready to be extracted, with boxes untouched was more than they could stand, and in a trice they were emptied, giving both the bees and the Queen room; and now they labor industriously like the rest.

2. Have every comb built between two others, or between one and the side of the hive, and they cannot well be other than straight.

DEAR NOVICE:—I have not for two years used any smoke at my home apiary where I open some of the hives daily in the season, and where all my children play as carelessly as if there were no such things as bees. Honey is so scarce during the last half of May, whole of June and July that I have to divide up my apiary into three or four; take them in an ordinary three-spring wagon and trot off on our smooth roads, as fast and as safely as if pleasure riding.

I never *could* use a feather, nor a wisp broom in brushing bees from their combs.

Plenty of good weeds usually abound, but I find an asparagus stem with plenty of small *limbs*, just the thing; these *vegetable* brushes do not make the bees mad a bit, in fact they soon get used to being brushed and will, as soon as they see the right kind of a brush coming roll off like peas. I have succeeded in replacing my last fall's number of stocks—51—by division, have all in tip-top order, ready for any thing that comes in the way of honey.

I put my bees in my cellar, in the fall, under the main living room of my house, ventilating very little, and have good success. I lost two between Nov. 15th, and March 1st, the day set out—starved—leaving two full frames of honey on the side of the hive opposite the bees. March was so cold, and April too, for that matter, that after a couple of day's flight, they could not be examined for three weeks at a time. The consequence was two starved, and four or five came out and found other hives. All my hybrids played that trick on me. They invariably left clean combs, with brood and sealed honey—showing their *cussedness*—of 40 pure Queens, not one would desert her hive.

I have to-day 7 frames full of brood, in each of upwards of 40 stands—and when we get so many in the *Quinby* frame, we may expect *some bees* one of these days, but there will be little honey for them until Aug.

June 22nd—Contrary to expectations, we are now in the hight of a wonderful flow of honey from *Sumac*—which of late years has not yielded much. Every thing in the hives is filled full and I am kept busy hiving swarms, as it has become too much of a job to keep them from it by removing frames of brood.

G. F. MERRIAM, Topeka, Kansas.

We would be glad indeed to learn that the spring swarming out, belonged only to hybrids, but we believe the full bloods are sometimes quite guilty of the same trick. As a general thing weak colonies seem to be the ones most addicted to it, but there are many exceptions to this rule that are hard to get over.

Sudden yields of honey often come quite unexpectedly and from a variety of sources, therefore, 'tis always well to be ready to take advantage of them. Give the Queen room at such times at all hazards, and this can only be done with the extractor. When our present basswood yield first opened we tried giving the Queens empty combs of which we have plenty, but even when we gave a colony two, in the evening, they would be filled with honey before she could more than fill a circle three inches in diameter.

Oh Novice! Can you believe me when I tell you that I am going to have at least three Queens from those eggs—such is likely to be the case I assure you, for there are three nice cells started and I can see the young brood in the jelly at the bottom. The eggs did not reach me till Thursday. I think they came as far as eight hundred miles. A. MCMAINS.

Charlton, Iowa, July 10th, 1874.

Very glad indeed to hear it, and perhaps if we could always be sure of having such beautiful warm weather as we have had during this month, we might send them 1000 miles or more. The above piece of comb if we remember correctly, contained eggs just laid in a piece of comb containing bees just gnawing out. If we cannot manage some way or other, to give all our readers the benefit of the Italian bees without such enormous expenses and failures as *have been* the rule, we shall think *we* are a failure in one respect at least.

WILL a few, please remember that our subscribers are all regarded as equally our friends and we can in no case show any partiality in favor of any particular one. Several have written us very pleasant letters asking us to send just one queen before its regular turn; this would be wronging others and their need is often just as great. Again, others when we have become somewhat acquainted, ask us to deviate from our regular rates of "cash with order" for our various implements. Unless we show partiality we cannot do this; besides, should we we do it, losses would inevitably occur, and our prices in future must be raised sufficiently to pay these losses; the result being that *those of our customers who are paying cash in advance without a word of complaint, would be obliged to pay the debts of those who plead for a little time, and then neglect to pay. Is this right or proper?* Of course you all answer *certainly not.*

Now please don't think hard of us, if we make no distinction and require all to conform to our established rule. Bear in mind that our sales are made of many small amounts, and our customers often hundreds of miles away. It seems hard and rude we know, but some of the very cleverest friends we have among our correspondents, are often slowest pay,and perhaps they can't *get* the money; we don't know.

We desire to supply our friends at the very lowest possible figure, and we cannot do this safely unless we have cash with the order.

Half a teacupful of bees, sent *with* the comb of eggs, would doubtless make a sure thing of it, but if we do this, would it not be best to send a Queen also? Queens reared from imported mothers, and fertilized where Italian drones are the rule and not the exception, are now sent for *one dollar.*

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